

**End of Result Set** 

L13: Entry 1 of 1

File: USPT

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DOCUMENT-IDENTIFIER: US 6376619 B1

TITLE: High density, miniaturized arrays and methods of manufacturing same

Detailed Description Text (5):

"Analyte" shall mean a molecule, compound, composition or complex, either naturally occurring or synthesized, to be detected or measured in or separated from a sample of interest. Analytes include, without limitation, proteins, peptides, amino acids, fatty acids, nucleic acids, carbohydrates, hormones, steroids, lipids, vitamins, bacteria, viruses, pharmaceuticals, and metabolites.

Detailed Description Text (11):

"Reactant" shall mean any chemical molecule, compound, composition or complex, either naturally occurring or synthesized, that is capable of binding an analyte in a sample of interest either alone or in conjunction with a molecule or compound that assists in binding the analyte to the substrate, such as, for example, a coenzyme. The reactants of the present invention are useful for chemical or biochemical measurement, detection or separation. Accordingly, the term "Reactant" specifically excludes molecules, compounds, compositions or complexes, such as ink, that do not bind analytes as described above. Examples of reactants include, without limitation, amino acids, nucleic acids, including oligonucleotides and cDNA, carbohydrates, and proteins such as enzymes and antibodies.

Detailed Description Text (33):

The coatings may be crosslinked or otherwise treated to insolubilize, modify the T.sub.g or modify the adhesion properties of the coating. For example, copolymers that have a low T.sub.g may be formulated with a cross-linker in order to raise the T.sub.g of the resultant coating. The coatings can be applied to the substrate by any of several conventional means known in the art, such as extrusion coating, die coating, dip coating, air-knife coating, gravure coating, curtain coating, spray coating, use of wire wound coating rods, and the like. Coatings may be made from solution, followed by removal of solvent, or by hot melt coating of 100% solids formulations.

Detailed Description Text (37):

The type of reactant used in the present invention will vary according to the application and the analyte of interest. For example, when characterizing DNA, oligonucleotides are preferred. When conducting diagnostic tests to determine the presence of an antigen, antibodies are preferred. In other applications, enzymes may be preferred. Accordingly, suitable reactants include, without limitation, amino acids, nucleic acids, including oligonucleotides and cDNA, carbohydrates, and proteins such as enzymes and antibodies.

Detailed Description Text (64):

A 5 cm.times.5 cm section of the polyethylene shrink film prepared as described above was immersed in a solution (5% solids, methylethylketone, 25 ml) containing a copolymer of vinyldimethyl azlactone/dimethylacrylamide (60/40 wt/wt), prepared by typical solution polymerization method well-known in the art, such as that described in U.S. Pat. No. 4,304,705, incorporated herein by reference. The solution was gently agitated for 2 hours at room temperature. The polyethylene film was removed from this solution, washed with MEK (15 minutes) and allowed to air dry, thus generating a substrate including covalently attached linking agents.

Detailed Description Text (82):

This example serves to demonstrate DNA hybridization on a modified shrink film containing covalently attached oligonucleotide.

**CLAIMS:**

12. The array of claim 1 wherein said reactant is selected from the group consisting of nucleic acids, proteins, and carbohydrates.